OPERATING,
MAINTENANCE &

PARTS MANUAL

SUPPLEMENT

ARMY TYPE TROLLEY HOIST

TALC® ARMY TYPE TROLLEY HOIS

Rated Loads: Army Type Trolley Hoists 1/4 through 12 tons.

Follow all instructions and warnings for inspecting, maintaining and operating this trolley hoist.

The use of any trolley hoist presents some risk of personal injury or property damage. That risk is greatly increased if proper instructions and warnings are not followed. Before using this trolley hoist, each operator should become thoroughly familiar with all warnings, instructions and recommendations in this manual supplement supplement. Retain this manual supplement for future reference and use.

Forward this manual supplement to operator. Failure to operate equipment as directed in manual supplement may cause injury.



Before installing trolley hoist, fill in the information below.

Rated Load ₋	
Serial No	

Purchase Date _____

GENERAL INFORMATION

SPECIFICATIONS

The Yale Hand Hoist has been expanded to include trolley suspended units. The Yale Army Type Trolley Hoist consists of the lightweight, durable Yale Hand Hoist rigidly suspended from a four wheel trolley. To suspend the hoist from the trolley, the upper hook is replaced by a pair of load bars. As a result, the components of the hoist including the lower hook parts are shown and described in Manual No. Y646. The manual should also be used for operating instructions, safety procedures, inspections and maintenance procedures, lubrication information, troubleshooting, hoist exploded view, parts list and load chain reeving information.



YALE REPAIR/REPLACEMENT POLICY

All Yale Hand Hoists and Army Type Trolley Hoists are thoroughly inspected and performance tested prior to shipment. If any properly maintained Trolley Hoist develops a performance problem due to a material or workmanship defect, as verified by Yale or an authorized service station, repair or replacement of the unit will be made to the original purchaser without charge. This repair/replacement policy applies only to Trolley Hoist installed, maintained and operated as outlined in this manual, and specifically excludes parts subject to normal wear, abuse, improper installation, improper or inadequate maintenance, hostile environmental effects, and unauthorized repairs/modifications.

We reserve the right to change materials or design if in our opinion, such changes will improve our product. Abuse, repair by an unauthorized person, or use of non-Yale replacement parts voids the guarantee and could lead to dangerous operation. For full Terms of Sale, see Sales Order Acknowledgment. Also, refer to the back cover of Manual No. Y646 for Limitations of Warranties, Remedies and Damages and, Indemnification and Safe Operation.

Army Type Trolley Hoists

This compact trolley hoist features reduced headroom, side clearances and end approach which make it ideal for operation in tight spaces. Integral trolley has hardened universal tread flanged trackwheels which minimize rolling friction. Yale's Internal Load Limiter™ automatically guards against damaging overloads without increasing overall dimension. Capacities range from 1/4 thru 12 ton - plain or geared trolley. Adapts to a wide range of beam adjustments.



SPECIFICATIONS

ty	Ton	1/4	1/2	1	1-1/2	2	3	4	5	6	8	10	12
Plain Trolley		925-	925-	925-	925-	925-	925-	925-	925-	925-	925-	925-	925-
-		02400	03400	05400	06400	07400	09400	11400	13400	14400	16400	17400	18400
Geared Trolley		925-	925-	925-	925-	925-	925-	925-	925-	925-	925-	925-	925-
•		02500	03500	05500	06500	07500	09500	11500	13500	14500	16500	17500	18500
ard Lift	Ft.	8	8	8	8	8	8	8	8	8	8	8	8
s of Chain		1	1	1	1	1	2	2	3	3	4	5	5
Standard Depth	ln.	6-12*	6-12*	6-12*	6-15	6-15	7-15	7-15	8-18	8-18	12-24	12-24	15-24
Flange Width	ln.	3 3/8-5 1/2	3 3/8-5 1/2	3 3/8-5 1/2	3 3/8-5 5/8	3 3/8-5 5/8	3 3/8-5 5/8	3 3/8-5 5/8	4-6 1/4	4-6 1/4	5-8	5/8	5 1/2-8
Pull To Lift Full ty Load	Lbs.	23	46	69	80	83	85	87	74	89	91	93	95
Overhauled to													
ad One Foot	Ft.	22 1/2	22 1/2	30	40 1/2	52	81	104	156	156	208	260	312
um Headroom	ln.	11 7/16	11 7/16	11 3/4	15 5/16	15 5/16	19	19	22 9/16	23 1/16	29 5/16	29 5/16	31 13/16
um Radius Curve	ln.	30	30	30	30	30	48	48	60	60	72	72	96
	Plain Trolley Geared Trolley ord Lift s of Chain tandard Flander Depth strent Depth flange Width Pull To Lift Full ty Load Overhauled to ad One Foot um Headroom	Plain Trolley Geared Trolley Int Lift Ft. Intervention of Chain Flange Width Intervention of Chain Pull To Lift Full By Load Lbs. Diverhauled to ad One Foot Ft. Intervention of Chain Flange Width Intervention of Chain Lift Full Flange Width Intervention of Chain Lift Full Flange Width Intervention of Chain Lift Full Flange Width Intervention of Chain Flange Width Interventi	Plain Trolley 925- 02400 925- 02500 925-	Plain Trolley									

^{*1/4} thru 1 ton plain Trolley Hoist can be adapted to 4" & 5" depth - American Standard Shapes (2 5/8"-3" flange widths) - at no extra charge.

† Specify exact beam size when ordering.

TROLLEY INSTALLATION



WARNING

Operating the trolley hoist on a beam that has no rail stops may allow the trolley hoist to fall off the end of the beam.

To Avoid Injury:

Install rail stops at each end of the beam on which the trolley hoist is to operate.

The railstops must be positioned so as to not exert impact force on the hoist portion of the unit or the trolley wheels. They must contact the ends of the trolley side frames.

Due to the variations in beam flange widths, it is suggested that the beam flange width be measured to determine the exact distribution of spacer washers. The distance between trackwheel flanges (dimension "X") should be 1/8 to 3/16 inch greater than the beam flange width for straight runway beams, and 3/16 to 1/4 inch greater than the beam flange width if runway system includes sharp curves. Also, the use of other than Yale supplied washers may result in trackwheel to beam flange variations and thus Figure 1 will not apply.



WARNING

If washer spacing recommendations are not followed, trolley hoist may fall from beam.

To Avoid Injury:

Measure the actual beam flange on which the trolley hoist is to operate and use Figure 1 to determine the arrangement of the spacer washers for that flange width.

Immediately after installation, operate trolley with a capacity load over the entire length of runway or monorail system to be sure that all adjustments and operations are satisfactory.

When applying a load, it should be directly under the trolley. Avoid off center loading of any kind. Side loading may spread trolley side frames.

On systems with curves, the edges of the rail at the curved sections should be lightly lubricated with grease.



WARNING

An excessively worn beam flange may fail and allow the trolley hoist to fall from the beam.

To Avoid Injury:

Periodically inspect the beam flange for wear. Replace beam if flange is worn.

	DISTRIBUTION OF SPACER WASHERS																			
Flange	1/4, 1/2 & 1 Ton		I -	1-1/2 & 2 Ton		3 & 4 Ton			5	& 6	5 То	n	8, 10 & 12 Ton							
Width	·	Tro	lley	/	1	Γro	lley	/	1	rol	ley			Tro	lley	/		Tre	olle	у
(In.)	Α	В	C	D	Α	В	C	D	Α	В	C	D	Α	В	c	D	Α	В	C	D
2-5/8	20	7	7	20																
2-3/4	19	8	8	19																
3	17	10	9	18																
3-1/4	16	11	11	16																
3-3/8	15	12	12	15	16	6	6	16												
3-5/8	14	13	13	14	14	8	7	15	13	0	0	13								
3-7/8	12	15	14	13	13	9	9	13	12	1	2	11								
4	9	16	15	12	12	10	10	12	11	2	3	10	14	0	0	15				
4-1/8	9	16	16	9	11	11	11	11	10	3	3	10	13	1	1	14				
4-5/8	7	20	19	8	8	14	13	9	7	6	6	7	10	4	4	11				
5	6	21	22	5	6	16	15	7	5	8	9	4	8	6	6	9	18	3	3	18
5-1/8	5	22	22	5	5	17	16	6	4	9	9	4	7	7	7	8	17	4	4	17
5-1/4	4	23	23	4	4	18	18	4	3	10	10	3	6	8	8	7	16	5	5	16
5-1/2	1	26	26	1	2	20	20	2	2	11	11	2	5	9	10	5	15	6	7	14
5-5/8					1	21	21	1	1	12	12	1	4	10	11	4	14	7	8	13
6													2	12	13	2	11	10	10	11
6-1/4													1	13	14	1	10	11	12	9
6-3/8																	9	12	12	9
																	5	16	15	6
7-1/8																	5	16	16	5
7-1/4																	4	17	16	5
7-7/8																	0	21	20	1
8																	0	21	21	0

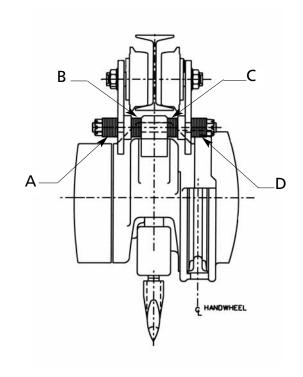


Figure 1

INSPECTION

To maintain continuous and satisfactory operation, a regular inspection procedure must be initiated to replace worn or damaged parts before they become unsafe. Inspection intervals must be determined by the individual application and are based on the type of service to which your hoist will be subjected and the degree of exposure to wear, deterioration or malfunction of the critical components.

The type of service to which the hoist is subjected can be classified as "Normal", "Heavy" and "Severe".

Normal Service. Involves operation with randomly distributed loads within the rated load limit, or uniform loads less than 65% of rated load for not more than 25% of the time.

Heavy Service. Involves operating the hoist within rated load limit which exceeds normal service

Severe Service. Is normal or heavy service with abnormal operating conditions.

Following are the recommended, minimum intervals of inspection. When the unit is subjected to extra heavy usage or dusty, gritty, moist, or other adverse atmospheric conditions, shorter time intervals must be assigned. During the Periodic Inspection, inspection must be made of all parts for unusual wear, corrosion effect or damage in addition to those specifically mentioned.

Minimum Inspection Schedule

Frequent Inspections. These inspections are visual examinations by the operator or other designated personnel. Records of such inspections are not required. The frequent inspections are to be performed monthly for normal service, weekly to monthly for heavy service, and daily to weekly for severe service and they should include those items listed in Table 1 of Manual No. Y646.

Periodic Inspections. These inspections are visual inspections of external conditions by an appointed person. Records of periodic inspections are to be kept to provide the basis for continuing evaluation of the condition of the hoist.

Periodic inspections are to be performed yearly for normal service, semi-annually for heavy service and quarterly for severe service and they are to include those items listed in Table 2 of Manual No. Y646.

Any parts that are deemed unserviceable are to be replaced with new parts before the unit is returned to service. It is very important that the unserviceable parts be destroyed and properly disposed of to prevent their possible future use as a repair item.

PARTS LIST

ORDERING INFORMATION

The following information must accompany all correspondence or repair parts orders.

- 1) Hoist capacity.
- 2) Serial Number this is stamped on the hoist frames as shown below.

For parts orders also specify:

- 1) Quantity desired.
- 2) Key number of part.
- 3) Part name.
- 4) Part number.

When ordering replacement parts, consideration should be given to the need to replace other items: bearings, fasteners, gaskets, etc. Items that may be damaged or lost during disassembly or just unfit for future use because of deterioration from age or service.



WARNING

Using "Commercial" or other manufacturer's parts to repair the Yale Hand and Army Type Trolley Hoists may cause load loss.

To Avoid Injury:

Order all replacement parts from Yale. Parts may look alike but often Yale parts are made of specific materials or processed to achieve specific properties.

Parts should be ordered from Yale's Authorized Parts Depots conveniently located throughout the United States. Refer to page i of Manual No. Y646 to locate the Authorized Parts Depot nearest you.

YALE ARMY TYPE TROLLEY HOIST PARTS LIST

			1		Cai	pacity - Tons			
-	No.		1/4, 1/2 & 1	3/4	1-1/2 & 2	3 & 4	5 & 6	8 & 10	12
No.		Part Name				art Number			
646-264	1	Side Frame-Hoist Handwheel Side-Plain Trolley	46694	46684	46688	46381	46392	46406	46504
	1	Side Frame-Hoist Handwheel Side-Geared Trolley	46375		46679	46381	46392	46406	46504
646-265	1	Side Frame-Hoist Geared Side-Plain Trolley	46695	46685	46689	46382	46393	46407	46505
	1	Side Frame-Hoist Geared Side-Geared Trolley	46376		46680	46383	46396	46500	46506
646-266	1	Upper Load Bar	46361	46686	46367	46378		46389	
646-267	1	Lower Load Bar	463		46368	46379	46200	46368	420
646-268	2	Suspension Bolt-Plain	46364	46366	46369	46380	46390		420
646.260	2	Suspension Bolt-Geared	46374		46371	46386	46394	/0	428
646-269	4	Suspension Bolt Nut	9488				958818		
646-269A	4	Suspension Bolt Nut Cotter Pin	9883				988368		
646-270	2	Load Bar Screw	9467				946766		
646-270A	2	Load Bar Screw Lockwasher	9368			T	946767		
	4	Trackwheels (Plain Trolley)	357		50762	39016	39017		006
646-271	2	Trackwheels (Geared Trolley)		39002		39016	39017	39006	39006
	2	Trackwheels (With Gears)		35642					
		Trackwheel Stud-Plain	987		35838	39375	39377	393	
	4	Trackwheel Stud Nut-Plain	982		948804	988097	982613	988	
		Trackwheel Stud Lockwasher-Plain	987		987924	987927	987928	1	· -
		Trackwheel Stud-Plain Side-Geared		36361		39375	39377	393	
646-272	2	Trackwheel Stud Nut-Plain Side-Geared		988155		988097	982613	988	158
		Trackwheel Stud Lockwasher-Plain Side-Geared		987926		987927	987928		. -
		Trackwheel Stud-Geared Side-Geared		36362		39376	39378	393	880
	2	Trackwheel Stud Nut-Geared Side-Geared		988155		988097	982613	988	158
		Trackwheel Stud Lockwasher-Geared Side-Geared		987926		987927	987928	-	. -
646-273	2	Capacity Label	946	768	946769	46772 46773	46774 46775	46776 46777	46778
646-273A	1	Warning Label				936984			-
646-274		Trolley Spacer Washers (Specify Amount Reg'd.)	948	700			58726		
		Hanger Bolt Washers (Specify Amount Reg'd.)						48701	
		Chain Anchor Bolt Washers (Specify Amount Reg'd.))				_		958726
646-276	2	Hanger Bolt Nut	'				945835	-	
	4	1						945	835
646-276A	2	Hanger Bolt Cotter Pin					988382		
0 10 27 07 1	4	Trianger Bote Cotter Fill					300302	988	382
646-277	1	Hanger Assembly					46614	464	
646-278	1	Hanger Sheave					45085	45436 (8	
040-270	2	Trianger Sneave					43003	45436 (10) & 12 Ton
646-279	2	Hanger Sheave Bearing	+		-		83670	88542 (10	
040-273	1	Trianger sneave bearing				88542 (8 Ton)	03070	00342 (10	Q 12 1011)
646-280	2	Hanger Sheave Bearing Retainer	+			00342 (0 1011)	45151	1	
646-281	1	Hanger Sheave Snap Ring	+		<u>-</u>		45765		_
646-282	2	Sheave Shaft					43/03		 413
646-283	2	Keeper Plate							414
646-284	4	Keeper Plate Screw						1	2693
646-285	4	Keeper Plate Screw Lockwasher	+						2226
646-286	1	Dead End Block	+						422
646-287	1	Dead End Block Dead End Pin							422 944
			+		_				
646-288	1	Chain Anchor				IC 44E (0 T)		48021 (10 Tor	1) 40303
646-289	1	Sheave Hanger Bottom Plate				16415 (8 Ton)			
646 200	2		-			15 (10 & 12 Tor	1)		
646-290	4	Sheave Hanger Bottom Plate Screw				82706 (8 Ton)	,		
	8					'06 (10 & 12 To		1	
	1	Hanger Bolt-PlainTrolley					46391		400
C4C 35:	2	Hanna Balk Casan LT	+			_	4630=	46	408
646-291	1	Hanger Bolt-Geared Trolley			-		46395	1	405
C4C 2C2	2	Chaire Analogue Balta Bl. 1	+		_			46	405
646-292	1	Chain Anchor Bolt-Plain	+						70420
		Chain Anchor Bolt-Geared	+						70428
646-293	2	Chain Anchor Bolt Nut							958818
646-293A	2	Chain Anchor Bolt Cotter Pin							988368
646-294	2					16416 (8 Ton)			
1	2	Hook Block Half				6507 (12 Ton)			
'		I .				- Hoist Gear Ho			
	1				46503 (10 Tor	n - Hoist Handv	vheel Side)		
	1				•			46307	46305
646-295	1 1 1	Hook Block Top Plate						40307	
646-295 646-296	1	Hook Block Top Plate Top Plate Screw				781 (8 & 10 Tor	1)	40307	
	1 1 1					781 (8 & 10 Tor 16781 (12 Ton)	1)	40307	
	1 1 1 6						n)		5780
646-296	1 1 1 6 8	Top Plate Screw Hook Block Bolt Hook Block Bolt Nut			94		n)	946	5780 3804
646-296 646-297	1 1 1 6 8 2	Top Plate Screw Hook Block Bolt			94 		n)	946	
646-296 646-297 646-298	1 1 1 6 8 2 2	Top Plate Screw Hook Block Bolt Hook Block Bolt Nut			94 		n)	946 948 987	804
646-296 646-297 646-298 646-299	1 1 1 6 8 2 2 2	Top Plate Screw Hook Block Bolt Hook Block Bolt Nut Hook Block Bolt Lockwasher			94 		n)	946 948 987	8804 7924
646-296 646-297 646-298 646-299 646-300	1 1 1 6 8 2 2 2 2	Top Plate Screw Hook Block Bolt Hook Block Bolt Nut Hook Block Bolt Lockwasher Hook Block Bolt Pipe Spacer			94 		n)	946 948 987 46	8804 7924
646-296 646-297 646-298 646-299 646-300	1 1 1 6 8 2 2 2 2 2	Top Plate Screw Hook Block Bolt Hook Block Bolt Nut Hook Block Bolt Lockwasher Hook Block Bolt Pipe Spacer			94 	16781 (12 Ton)	1)	946 948 987 46	3804 7924 420

YALE ARMY TYPE TROLLEY HOIST PARTS LIST

				Capacity - Tons							
Key	No.		1/4, 1/2 & 1	3/4	1-1/2 & 2	3&4	5&6	8 & 10	12		
No.		Part Name				art Number					
646-303	2	Hook Block Sheave Bolt			<u> </u>		-	46421			
C45 204	3					_			46421		
646-304	4	Sheave Bolt Nut		·		·		988149			
545 305	6								988149		
646-305	4	Sheave Bolt Lockwasher						987924	100		
	6				<u> </u>	-			987924		
646-306	1	Chain Anchor Bolt	·			(10 Ton Or					
646-307	2	Chain Anchor Bolt Nut				9 (10 Ton O					
646-308	2	Chain Anchor Bolt Lockwasher			98792	4 (10 Ton O	nly)				
646-309	2	Hook Block Plate - Warning Label				-		702	283		
646-310	2	Hook Block Capacity Label		46917	- (8 Ton), 469	16 - (10 Ton), 46915 - (12				
646-311	16	Capacity Plate Screw				-			271		
646-312	1 1	Lower Hook				_		46006	46304		
646-313	1	Latch Kit						52707	71913		
646-314	1	Hook Trunnion							424		
646-315	1	Hook Thrust Bearing	:						511		
646-316	1	Hook Nut						945836	82468		
646-317	1	Hook Nut Pin						983788	82466		
646-318	1 1	Hook Sleeve						46425			
646-319	4	Trackwheel Bearing		82113		82119	82115				
646-320	8	Trackwheel Cup	·			-		88	523		
646-321	8	Trackwheel Cone						88!	519		
646-322	8	Trackwheel Bearing Washer						810	800		
646-323	8	Trackwheel Snap Ring							715		
646-324	4	Trackwheel Spacer-Plain Trolley				39716	39717	810	009		
	2	Trackwheel Spacer-Geared Trolley-Plain						810	009		
C4C 30F	2	Trackwheel Spacer-Geared Trolley-Geared						393	386		
646-325	4	Trackwheel Stud Washer			1014	81015	81016				
646-326	4	Trackwheel Spacer Washer-Geared			2046	<u> </u>					
	4	Trackwheel Spacer Washer-Plain			987903						
C4C 227	4	Trackwheel Spacer Washer	 			82047	82048				
646-327	2	Trackwheel Gear		35425		39382	39383	393	384		
646-328	6	Trackwheel Gear Pin		9:	83777		983778				
646-329	4			·		-			781		
646-329	4	Trackwheel Gear Screw				- .			687		
	1	Handwheel Shaft & Pinion		46677		46676	46398	46	501		
646-331 646-332	2	Handwheel Shaft Bushing	· · · · · · · · · · · · · · · · · · ·			82054					
646-333	1	Handwheel				33143					
646-334	1	Handwheel Key	<u> </u>			59967					
646-335		Handwheel Shaft Nut		··································		988095					
646-336	1	Handwheel Shaft Lockwasher				986270					
646-337	1	Hand Chain Guide		46678		ļ <u> </u>		152			
646-338	1	Hand Chain Guide Bushing Guide Screw						727			
646-339	1	Guide Screw Nut						065			
646-340	1 1	Guide Screw Nut Guide Screw Lockwasher	_					822			
646-341	1					 		853			
646-342		Guide Screw Washer Hand Chain					986	224			
040-342		Hand Chain - Zinc Plated				85808					
646-343						619022					
040-343	1	Hand Chain Connecting Link				945490					
646-344	<u>; </u>	Hand Chain Connecting Link - Zinc Plated	<u> </u>			945491		· · ·			
U40-344	; 1	Capacity Insert							46918		

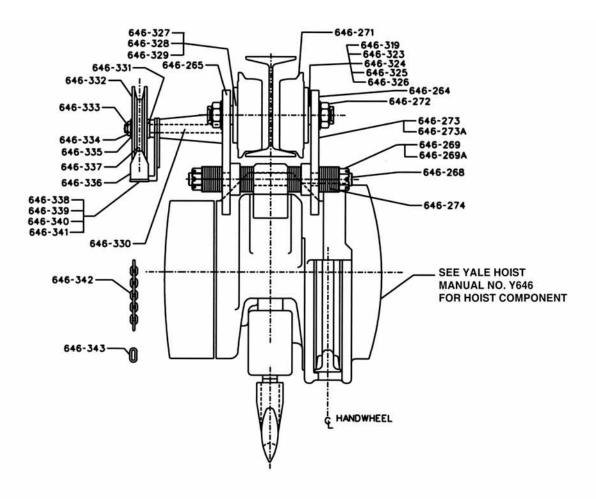
Part Num Yale F	nbers for packaged lubi land and Army Type Tro	ricants used in olley Hoists
Lubricant Usage	Type of Lubricant	Part Numbers and packaged Quantities of Lubricants
Gears	Grease	28610 (1# can) 28632 (4# can)
Handwheel Threads	Spray	46698 (16 oz.)
Chain	Oil	28608 (1 pt. can) 28619 (1 gal. can)
Trackwheel Bearings	Grease	28610 (1# can) 28632 (4# can)
Trackwheel Gears	*Heavy Cup Grease	
Handwheel Shaft	*Light Machine Oil	

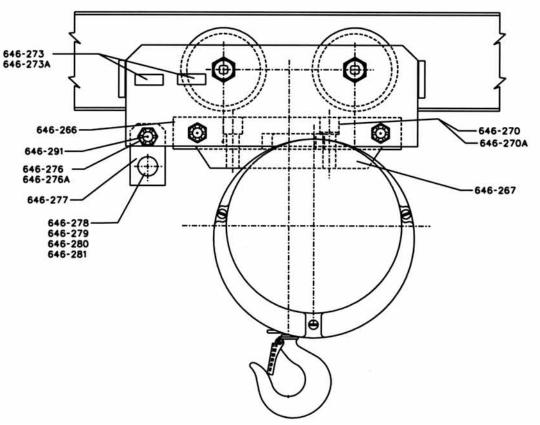
*These are not furnished by Yale in Packaged Quantities.
When ordering lubricants, specify the type of lubricant, part number and packaged quantity required.

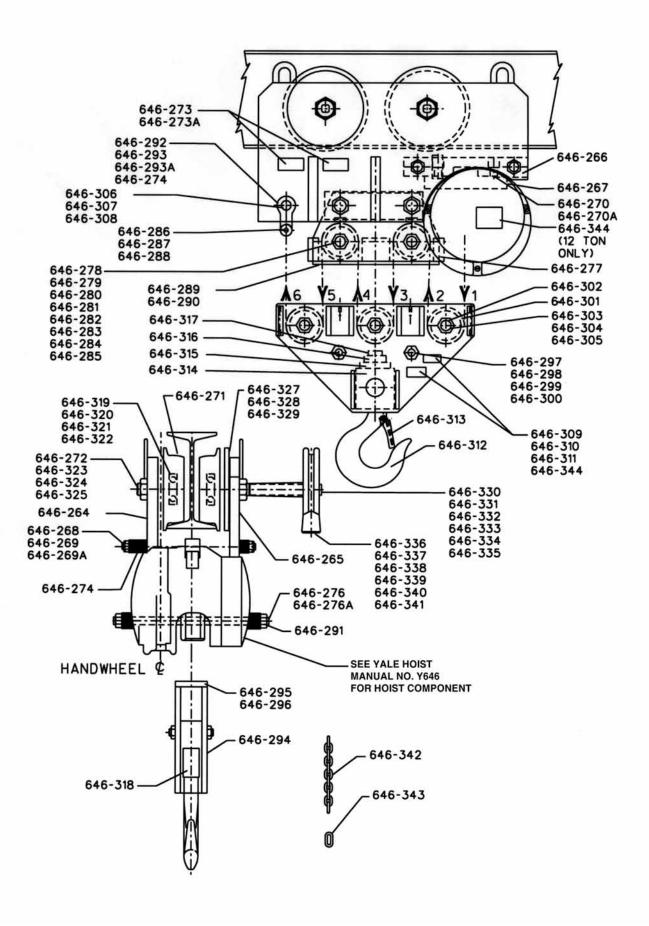
Touch-up Paints for Yale Hand and Army Type Trolley Hoists:

- Hoist. Order **(1) case (12-12 oz. Aerosol Cans) of Yellow Touch-up paint Part Number 40215.
- Trolley. Order **(1) case (12-12 oz. Aerosol Cans) of Black Touch-up paint Part Number 84189.
- ** Touch-up paints are only available in case quantities.

NOTE: When painting Hoists or Trolleys, also order warning labels, identification labels, etc. that may be coated during painting.







NOTES

Note: When ordering parts, always furnish hoist model and serial number, motor horsepower, voltage, phase, frequency and rated capacity of hoist on which the parts are to be used.

For the location of the nearest Authorized Repair Station, Contact Yale, (see inside of Manual No. Y646).

LIMITATION OF WARRANTIES, REMEDIES AND DAMAGES

THE WARRANTY STATED BELOW IS GIVEN IN PLACE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, NO PROMISE OR AFFIRMATION OF FACT MADE BY ANY AGENT OR REPRESENTATIVE OF SELLER SHALL CONSTITUTE A WARRANTY BY SELLER OR GIVE RISE TO ANY LIABILITY OR OBLIGATION.

Seller warrants that on the date of delivery to carrier the goods are free from defects in workmanship and materials.

SELLER'S SOLE OBLIGATION IN THE EVENT OF BREACH OF WARRANTY OR CONTRACT OR FOR NEGLIGENCE OR OTHERWISE WITH RESPECT TO GOODS SOLD SHALL BE EXCLUSIVELY LIMITED TO REPAIR OR REPLACEMENT, F.O.B. SELLER'S POINT OF SHIPMENT, OF ANY PARTS WHICH SELLER DETERMINES TO HAVE BEEN DEFECTIVE or if Seller determines that such repair or replacement is not feasible, to a refund of the purchase price upon return of the goods to Seller.

Any action against Seller for breach of warranty, negligence or otherwise, must be commenced within one year after such cause of action occurs.

NO CLAIM AGAINST SELLER FOR ANY DEFECT IN THE GOODS SHALL BE VALID OR ENFORCEABLE UNLESS BUYER'S WRITTEN NOTICE THEREOF IS RECEIVED BY SELLER WITHIN ONE YEAR FROM THE DATE OF SHIPMENT. Seller shall not be liable for any damage, injury or loss arising out of the use of the goods if, prior to such damage, injury or loss, such goods are (1) damaged or misused following Seller's delivery to carrier; (2) not maintained, inspected, or used in compliance with applicable law and Seller's written instructions and recommendations; or (3) installed, repaired, altered or modified without compliance with such law, instructions or recommendations.

UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES AS THOSE TERMS ARE DEFINED IN SECTION 2-715 OF THE UNIFORM COMMERCIAL CODE.

INDEMNIFICATION AND SAFE OPERATION

Buyer shall comply with and require its employees to comply with directions set forth in instructions and manuals furnished by Seller and shall use and require its employees to follow such instructions and manuals and to use reasonable care in the use and maintenance of the goods. Buyer shall not remove or permit anyone to remove any warning or instruction signs on the goods. In the event of personal injury or damage to property or business arising from the use of the goods, Buyer shall within 48 hours thereafter give Seller written notice of such injury or damage. Buyer shall cooperate with Seller in investigating any such injury or damage and in the defense of any claims arising therefrom.

If Buyer fails to comply with this section or if any injury or damage is caused, in whole or in part, by Buyer's failure to comply with applicable federal or state safety requirements, Buyer shall indemnify and hold Seller harmless against any claims, loss or expense for injury or damage arising from the use of the goods.



Alterations or modifications of equipment and use of nonfactory repair parts can lead to dangerous operation and injury.

TO AVOID INJURY:

- Do not alter or modify equipment.
- Do use only factory provided replacement parts.



414 WEST BROADWAY AVENUE MUSKEGON, MICHIGAN 49443-0769 1-866-805-2962 • Fax: 1-800-742-9270